

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ARTURO A. RODRIGUEZ, RANDOLPH R. BEEBE,  
and GEOFFREY G. HAMMETT

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Appeal 2007-2220  
Application 09/896,231  
Technology Center 2600

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Decided: November 2, 2007

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Before LANCE LEONARD BARRY, MAHSHID D. SAADAT, and JOHN  
A. JEFFERY, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

1 Appellants appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-74. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

## STATEMENT OF THE CASE

Appellants invented a purchasing system for interactive television systems. Specifically, a processor enables downloading of recordable media content at various times using reallocated excess on-demand infrastructure capacity.<sup>1</sup> Claim 1 is illustrative with the relevant limitations in dispute emphasized:

1. A recordable media content purchasing system comprising:

a first memory; and

a first processor configured with the first memory to download *recordable* media content at one of a plurality of various download times for purchase of the recordable media content, wherein the processor uses *reallocated excess on-demand infrastructure capacity*.

The Examiner relies on the following prior art references to show unpatentability:

Bradley	US 5,172,413	Dec. 15, 1992
Pond	US 5,329,590	Jul. 12, 1994
Hooper	US 5,414,455	May 9, 1995
Haddad	US 5,555,441	Sep. 10, 1996
Greenwood	US 5,568,181	Oct. 22, 1996
Seazholtz	US 5,812,786	Sep. 22, 1998
LaJoie	US 5,850,218	Dec. 15, 1998
Wahl	US 5,898,456	Apr. 27, 1999
Kitsukawa	US 2001/0013125 A1	Aug. 9, 2001

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<sup>1</sup> See generally Specification 2:1-7.

(filed Apr. 12, 2001)

Aggarwal	US 6,631,413 B1	Oct. 7, 2003 (filed Jan. 28, 1999)
Hassell	US 2004/0128685 A1	Jul. 1, 2004 (effectively filed Sep. 17, 1998)
Rodriguez	US 2005/0071882 A1	Mar. 31, 2005 (effectively filed Jun. 9, 2000)
Okamoto	US 6,901,385 B2	May 31, 2005 <sup>2</sup>

1. Claims 1-4, 19, 20, 22-24, 62-65, 67-69, 72, and 74 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Rodriguez.
2. Claims 1, 5, and 63<sup>3</sup> stand rejected under 35 U.S.C. § 103(a) as unpatentable over Haddad and Hooper.
3. Claim 6 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Haddad and Greenwood.
4. Claims 7-18, 21, 26-50, and 53-61 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Haddad, Hassell, and Seazholtz.
5. Claim 25 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Haddad, Hassell, Seazholtz, and Kitsukawa.

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<sup>2</sup> This reference is a Continuation-in-part of App. No. 09/506,098, filed Feb. 17, 2000.

<sup>3</sup> Although the Examiner indicates that only claim 5 is rejected in the statement of the rejection, the Examiner nevertheless specifically refers to independent claims 1 and 63 in the text of the rejection (Answer 6-7). We therefore presume that the Examiner intended to include claims 1 and 63 in this rejection.

6. Claims 51 and 52 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Haddad, Hassell, Seazholtz, and Okamoto.
7. Claims 63, 65, and 66<sup>4</sup> stand rejected under 35 U.S.C. § 103(a) as unpatentable over Haddad and Wahl.
8. Claim 70 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Haddad.
9. Claim 71 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Haddad and Okamoto.
10. Claim 73 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Haddad and Seazholtz.

Rather than repeat the arguments of Appellants or the Examiner, we refer to the Briefs and the Answer for their respective details. In this decision, we have considered only those arguments actually made by Appellants. Arguments which Appellants could have made but did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

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<sup>4</sup> Although the Examiner indicates that only claim 66 is rejected in the statement of the rejection, the Examiner nevertheless specifically refers to independent claim 63 and claim 65 in the text of the rejection (Answer 24-25). Since claim 66 depends from claim 65 which likewise depends from independent claim 63, and in view of the Examiner's specific reference to these claims in the rejection, we presume that the Examiner intended to include claims 63 and 65 in this rejection.

## OPINION

### *The Anticipation Rejection Based on Rodriguez*

We first consider the Examiner's rejection of claims 1-4, 19, 20, 22-24, 62-65, 67-69, 72, and 74 under 35 U.S.C. § 102(e) as being anticipated by Rodriguez. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984); *W.L. Gore and Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554 (Fed. Cir. 1983).

The Examiner has indicated how the claimed invention is deemed to be fully met by the disclosure of Rodriguez (Answer 3-4). Regarding independent claims 1 and 63, Appellants argue that Rodriguez does not disclose downloading *recordable* media content as claimed, but rather discloses a system that provides real-time video on demand. Appellants emphasize that video on demand enables viewing at the time of access of the content, but purchasing recordable media content enables viewing at a later time. According to Appellants, not only does Rodriguez fail to teach recording video, the real-time video-on-demand content discussed in the reference is generally not recordable (Br. 5-6, 9-10; Reply Br. 2-3; emphasis added). Appellants add that Rodriguez also fails to disclose the processor using reallocated excess on-demand infrastructure capacity as claimed (Br. 6-7, 10-11; Reply Br. 3-4).

In response, the Examiner acknowledges that Rodriguez does not teach recording video data. The Examiner, however, notes that the claim merely calls for *recordable* media content -- content that is fully met by the video content in Rodriguez which is capable of being recorded. The Examiner adds that Rodriguez' adaptive allocation of bandwidth according to demand fully meets the limitation calling for the reallocation of excess on-demand infrastructure capacity (Answer 27-28).

We will sustain the Examiner's rejection of independent claim 1. We agree with the Examiner that the claim language simply does not preclude the video content purchased by the subscribers in Rodriguez -- content that is recordable. Even if the video is viewed when it is accessed (i.e., in real time), the content is nonetheless *capable* of being recorded. That is all the claim requires.

Furthermore, we do not agree with Appellants' assertion that video-on-demand content is generally not recordable. Not only have Appellants offered no evidence on this record to support this contention, we see no reason why the purchased video content in Rodriguez could not be recorded digitally (i.e., stored in memory). Moreover, we see no reason why the analog video signal corresponding to such content at the output ports 124 of the Digital Home Communications Terminal (DHCT) 14 that is destined for the TV in Figure 3 could not be recorded by a recording device such as a VCR. In short, the fact that the video content in Rodriguez is intended to be viewed on demand hardly means that it is not recordable.

We also find that Rodriguez discloses a processor that uses reallocated excess on-demand infrastructure capacity as claimed. First, we find that bandwidth fully meets "on-demand infrastructure capacity."

Rodriguez notes that bandwidth is a finite resource that limits the number of simultaneous transmissions of video content (Rodriguez, ¶ 0046). Accordingly, Rodriguez’ system manages bandwidth more effectively by, among other things, dynamically allocating available bandwidth between the transmission channels based on certain allocation criteria (Rodriguez, ¶¶ 0047-48). To this end, Rodriguez’ bandwidth allocation manager (BAM) 125 performs variety of bandwidth allocation functions including, among other things, fulfilling subscriber requests using any available bandwidth. In an exemplary implementation, if few or no subscribers have requested a certain movie, then the BAM can “recapture” that bandwidth and allocate it to fulfill another subscriber request. Moreover, when a movie is paused or stopped for a significant amount of time, that bandwidth can be reallocated (Rodriguez, ¶ 0061).<sup>5</sup>

This functionality clearly teaches (1) determining bandwidth that is either unused or underutilized (i.e., determining “excess” bandwidth), and (2) reallocating such “excess” bandwidth for other purposes, including downloading media content by other subscribers. Independent claims 1 and 63 are therefore fully met by Rodriguez.

For the foregoing reasons, we will sustain the Examiner’s rejection of independent claims 1 and 63 based on the disclosure to Rodriguez. Since Appellants have not separately argued with particularity the patentability of (1) dependent claims 2-4, 19, 20, 22-24, and 62, or (2) dependent claims 64, 65, 67-69, 72, and 74, these claims fall with independent claims 1 and 63

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<sup>5</sup> See also Rodriguez, ¶ 0069 (noting that the BAM enables efficient broadcasting of video content by freeing bandwidth that was previously allocated but unused); *Id.*, ¶ 0080 (discussing the BAM’s capability to recapture unused bandwidth when a user pauses the program).

respectively. See *In re Nielson*, 816 F.2d 1567, 1572 (Fed. Cir. 1987); see also 37 C.F.R. § 41.37(c)(1)(vii).

### *The Obviousness Rejections*

We now consider the Examiner's rejection of claims 1, 5, and 6<sup>6</sup> under 35 U.S.C. § 103(a) as unpatentable over Haddad and Hooper. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See *In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

Discussing the question of obviousness of a patent that claims a combination of known elements, *KSR Int'l v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007) explains:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraidia* [v. *AG Pro, Inc.*, 425 U.S. 273 (1976)] and *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969)] are illustrative—a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

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<sup>6</sup> As we indicated previously, we presume that the Examiner intended to include independent claims 1 and 63 in this obviousness rejection. See n.3, *supra*, of this opinion.

*KSR*, 127 S. Ct. at 1740. If the claimed subject matter cannot be fairly characterized as involving the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement, a holding of obviousness can be based on a showing that “there was an apparent reason to combine the known elements in the fashion claimed.” *Id.*, 127 S. Ct. at 1740-41. Such a showing requires “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.*, 127 S. Ct. at 1741 (quoting *In re Kahn*, 441 F.3d 977, 987 (Fed. Cir. 2006)).

If the Examiner’s burden is met, the burden then shifts to the Appellants to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

The Examiner essentially finds that Haddad teaches every claimed feature of independent claims 1 and 63, but adds that Haddad does not disclose the limitations of claim 5 calling for downloading recordable media content at a higher bit rate. The Examiner, however, cites Hooper as teaching this feature and concludes that such a feature would have been obvious to one of ordinary skill in the art at the time of the invention (Answer 6-7).

At the outset, we note that even though the Examiner indicates that Haddad anticipates independent claims 1 and 63, the Examiner nonetheless

specifically refers to these claims in connection with the obviousness rejection of claim 5. Therefore, notwithstanding the Examiner's statement of anticipation, we nevertheless presume that the Examiner intended to include independent claims 1 and 63 in the obviousness rejection of claim 5.<sup>7</sup>

Appellants have not disputed the Examiner's reliance on Hooper for the specific limitations of claim 5. Rather, Appellants dispute the Examiner's position that Haddad teaches all limitations of independent claims 1 and 63, namely that the processor uses reallocated excess on-demand infrastructure capacity (Br. 6-7, 10-11; Reply Br. 3-4). We therefore confine our discussion to these disputed limitations as they pertain to the Haddad reference.

We agree with the Examiner (Answer 28) that Haddad reasonably teaches using reallocated excess on-demand infrastructure capacity as claimed. Haddad indicates that in most audio-visual distribution systems, consumer demand peaks in the early evening which taxes the distribution network. Haddad's system, however, allows the distributor to deliver requested programs during off-peak hours, thereby shifting much of the demand away from the peak hours (Haddad, col. 2, ll. 34-44).

To this end, Haddad's system considers not only the variable time allowance interval that the subscriber selects, but also the available transmission capacity<sup>8</sup> of the distribution network in determining when to deliver the requested media. See, e.g., Haddad, col. 9, ll. 7-13 (discussing

<sup>7</sup> That Haddad may happen to anticipate some or all of the claims in an obviousness rejection does not otherwise negate its applicability. See *In re Meyer*, 599 F.2d 1026, 1031 (CCPA 1979) (noting that obviousness rejections can be based on references that happen to anticipate the claimed subject matter).

the rule-based approach of the Scheduling module to select and optimize delivery of video segments *when channels become free* to efficiently utilize the available hardware channels); *see also id.* at col. 11, ll. 3-4 and 9-10 (basing selection of a particular segment in part on the current channel status, including when each channel becomes free).

The clear import of this discussion is that during off-peak hours, there is less demand and therefore additional transmission capacity of the distribution network that is underutilized. Haddad's system, in effect, reallocates this underutilized "excess" capacity for transmissions that would otherwise have occurred during peak hours and taxed the system. In short, the skilled artisan would readily understand from Haddad that underutilized or "excess" transmission capacity initially allocated for off-peak hour transmissions is essentially reallocated for rescheduled transmissions.

For at least these reasons, we find Haddad amply teaches the limitations of claims 1 and 63. Moreover, Appellants have not persuasively rebutted the Examiner's position regarding the obviousness of the limitations of claim 5 based on the combined disclosures of Haddad and Hooper. Accordingly, we will sustain the Examiner's rejection of claims 1, 5, and 63.

Likewise, we will sustain the Examiner's rejection of claim 6 under 35 U.S.C. § 103(a) as unpatentable over Haddad and Greenwood. We find that (1) the Examiner has established at least a *prima facie* case of obviousness for this claim on Pages 7 and 8 of the Answer, and (2) Appellants have not persuasively rebutted the Examiner's *prima facie* case. The rejection is therefore sustained.

<sup>a</sup> *See, e.g.*, Haddad, col. 6, ll. 12-15 (noting the fiber optic link is capable of handling about 80 different programs simultaneously at 270 Mbits/sec).

*Claims 7-18, 21, 26-50, and 53-61*

We next consider the Examiner's rejection of claims 7-18, 21, 26-50, and 53-61 under 35 U.S.C. § 103(a) as unpatentable over Haddad, Hassell, and Seazholtz. Regarding this rejection, Appellants raise two main arguments.

First, regarding claims 15-18, Appellants contend that a claimed limitation (i.e., "using reallocated excess on-demand infrastructure capacity") purportedly did not receive an examination in the Final Office Action since that office action referenced language no longer in the claims as amended. As a result, Appellants assert that the finality of the rejection should be withdrawn (Br. 8).

Second, Appellants contend that the single patents provided by the Examiner to support the Official Notice assertions in claims 7, 12, 17, 18, 21, 40, 45, 47, 49, and 61 is insufficient evidence to support a conclusion that the features in question are well known (Br. 12-13).

We will sustain the Examiner's rejection of claims 7-18, 21, 26-50, and 53-61. Regarding Appellants' first argument, claims 15-18 ultimately depend on claim 1.<sup>9</sup> As we indicated previously, Haddad amply teaches the limitations of claim 1.<sup>10</sup> Although we find Appellants' argument for withdrawal of the Final Rejection is directed to a petitionable matter -- not an appealable matter<sup>11</sup> -- we nonetheless note that the Examiner addressed

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<sup>9</sup> Claims 15-18 each depend from claim 14 which, in turn, depends from claim 10. Claim 10 depends from claim 7 which, in turn, depends from claim 1.

<sup>10</sup> See p. 10-11, *supra*, of this opinion.

<sup>11</sup> See MPEP § 706.01 ("[T]he Board will not hear or decide issues pertaining to objections and formal matters which are not properly before the Board.");

the limitation in question on Pages 6 and 7 of the Answer and Page 8 of the Final Rejection mailed Dec. 29, 2005.<sup>12</sup>

We also find unavailing Appellants' argument pertaining to the alleged insufficiency of the evidentiary support for the Examiner's Official Notice assertions. To be sure, an Examiner's use of Official Notice unsupported by documentary evidence should only be taken when the facts so noticed are "capable of such instant and unquestionable demonstration as to defy dispute." *See In re Ahlert*, 424 F.2d 1088, 1091 (CCPA 1970) (citations omitted). Moreover, if the Examiner's assertion of Official Notice is adequately traversed, the Examiner must provide documentary evidence in the next Office Action to maintain the rejection. MPEP § 2144.03(C), Rev. 5, Aug. 2006 ("MPEP").<sup>13</sup>

Here, the record amply reflects that each assertion of Official Notice (Answer 9-13, 16, 18, 19, 22) was supported by a corresponding prior art reference. For clarity, the facts officially noticed by the Examiner with their corresponding evidentiary support are summarized below:

<b>Claim</b>	<b>Fact Officially Noticed As Well Known</b>	<b>Evidentiary Support</b>
7	Use of buffers in telecommunications	U.S. Pat. 5,414,455 <sup>14</sup> (Hooper); Abstract and

*see also* MPEP § 1201 ("The Board will not ordinarily hear a question that should be decided by the Director on petition....").

<sup>12</sup> *See also* Answer 11-13.

<sup>13</sup> *See also* Lance Leonard Barry, *Did You Ever Notice? Official Notice in Rejections*, 81 J. Pat. & Trademark Off. Soc. 129, 137-38 (1999).

		col. 2, ll. 8-15
12 and 16	Charging less for extended download times	U.S. Pat. 6,631,413 (Aggarwal); col. 4, ll. 11-33
21	Storing new releases in video servers	U.S. Pat. 5,172,413 (Bradley); col. 7, l. 63-col. 8, l. 11
40	Providing the user with on-screen options to purchase media	U.S. Pat. 5,850,218 (LaJoie)
45	Using icons in electronic programming guides	U.S. Pat. 5,850,218 (LaJoie); col. 19, ll. 29-38 and all figures
49	Providing the user with the on-screen option to purchase programs	U.S. Pat. 5,850,218 (LaJoie); Fig. 28
61	Debiting consumer accounts for various transactions	U.S. Pat. 5,329,590 (Pond); col. 8, ll. 27-43

Based on the nature of the facts noticed as shown above, we find no reversible error in the Examiner's approach to officially notice these facts. Significantly, the Examiner's reference to corresponding patents amply demonstrates that the facts were readily capable of unquestionable demonstration so as to defy dispute and readily available to the public. We further note that these facts officially noticed in the rejection were not merely considered in a vacuum as Appellants seem to suggest. Rather, in the pertinent rejections, the Examiner concluded that these facts were readily combinable with the relevant facts from the other cited references in arriving at the claimed invention. We find no reversible error in this approach. Moreover, we conclude that the Examiner has adequately established a

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<sup>14</sup> The patent number for the Hooper reference on Page 9 of the Answer contains a typographical error: U.S. Pat. No. 5,414,555 should be 5,414,455.

prima facie case of obviousness on Pages 8-22 of the Answer that Appellants have not persuasively rebutted.

For at least the foregoing reasons, we will sustain the Examiner's obviousness rejection of claims 7-18, 21, 26-50, and 53-61.

#### *Other Obviousness Rejections*

Regarding the Examiner's rejections under 35 U.S.C. § 103(a) of (1) claim 25 over Haddad, Hassell, Seazholtz, and Kitsukawa; (2) claims 51 and 52 over Haddad, Hassell, Seazholtz, and Okamoto; (3) claims 63, 65, and 66<sup>15</sup> over Haddad and Wahl; (4) claim 70 over Haddad; (5) Claim 71 over Haddad and Okamoto; and (6) claim 73 over Haddad and Seazholtz, we find that the Examiner has established at least a prima facie case of obviousness of those claims that Appellants have not persuasively rebutted.

Specifically, the Examiner has (1) pointed out the teachings of the references, (2) noted the perceived differences between the references and the claimed invention, and (3) reasonably indicated how and why the references would have been combined to arrive at the claimed invention (Answer 22-26). Once the Examiner has satisfied the burden of presenting a prima facie case of obviousness, the burden then shifts to Appellants to present evidence or arguments that persuasively rebut the Examiner's prima

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<sup>15</sup> Although the Examiner indicates that only claim 66 is rejected in the statement of the rejection, the Examiner nevertheless specifically refers to independent claim 63 and claim 65 in the text of the rejection (Answer 24-25). Since claim 66 depends from claim 65 which likewise depends from independent claim 63, and in view of the Examiner's specific reference to these claims in the rejection, we presume that the Examiner intended to include claims 63 and 65 in this rejection.

facie case. Appellants, however, did not persuasively rebut the Examiner's prima facie case of obviousness. The rejections are therefore sustained.

#### DECISION

We have sustained the Examiner's rejections with respect to all claims on appeal. Therefore, the Examiner's decision rejecting claims 1-74 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

Appeal 2007-2220  
Application 09/896,231

AFFIRMED

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